### IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF VIRGINIA Norfolk Division

DOUGLAS I. HORNSBY, Administrator of the Estate of CYNTHIA GARY,

Plaintiff,

v. Case No. 2:22-cv-427

**UNITED STATES of AMERICA, et al.,** 

**Defendant and Third-Party Plaintiff,** 

v.

METRO MACHINE CORP., d/b/a GENERAL DYNAMICS NASSCO – Norfolk

and

ADVANCED INTEGRATED TECHNOLOGIES, LLC,

Third Party Defendants.

## DEFENDANT AND THIRD-PARTY PLAINTIFF UNITED STATES' RULE 26(a)(2)(C) <u>DISCLOSURE OF NON-RETAINED EXPERT TESTIMONY</u>

Pursuant to Fed. R. Civ. P. 26(a)(2)(C) and the Rule 16(b) Scheduling Order, Defendant, the United States of America, submits the following disclosure of non-retained expert testimony:

GSCM (SW) Gregory M. Mann, U.S. Navy

MOB-E Gas Turbine Warfare Area Lead Afloat Training Group Norfolk/Engineering Assessments Atlantic 8952 First Street, Suite 121 Norfolk, VA 23511

Master Chief Mann is offered as a Rule 26(a)(2)(C) expert.

Master Chief Mann's education, training and experience is summarized in the U.S. Navy biography, attached as Exhibit A.

In addition to the information contained in Exhibit A, Master Chief Mann has been responsible for training and assessing the U.S. Navy's Atlantic Fleet ships' Engineering Management programs to include the Tagout Program and material assessments, to include Gas Turbine Blow-in Door inspections and operability testing, during his tours at Afloat Training Group Mayport (February 2010 to November 2012) and Afloat Training Group Norfolk (February 2017 to February 2020). Additionally, he is now the MOB-E Gas Turbine Warfare Area Lead responsible for 24 personnel conducting the training and assessments across all Atlantic Fleet Gas Turbine ships.

While serving as Top Snipe onboard USS Philippine Sea (December 2012 to December 2016), he led the Engineering Department through a Drydocking Selective Restricted Availability and multiple smaller maintenance availabilities. Additionally, while serving as Top Snipe onboard USS Vicksburg (March 2020 to December 2022), he managed the ship's Tag-out Program and coordinated three consecutive maintenance availabilities to include a dry docking, over 1000 repair activity work items, and more than 4,000 Work Authorizations and Tag-outs, during Service Life Extension Program (SLEP) 5-year extended repair and modernization period.

Materials reviewed by Master Chief Mann are summarized in the table attached as Exhibit B. Materials discussed or relied on by Master Chief Mann are cited in the summary of his anticipated testimony below by discovery production bates-number reference.

### SUMMARY OF SUBJECT MATTER, FACTS, AND OPINIONS

Master Chief Mann will provide testimony addressing issues presented by the November 28, 2024 report of Chester D. Rudolph III, P.E., Plaintiff's expert mechanical engineer ("Ru-

dolph Report"). Master Chief Mann's anticipated testimony is summarized as follows.

1. Contrary to Mr. Rudolph's conclusion that the McFAUL ships force failed to "properly set up and tag-out the BID system," (Rudolph Report, [unnumbered] p. 8 (pdf p. 12)), the sailors on the McFAUL involved in tagging out the blow-in door in Compartment No. 01-260-1-Q in the open position followed their training and Navy procedures in composing the proposed tag out configuration.

When tagging out equipment for Repair Activity ("RA")<sup>1</sup> work during a Maintenance Availability, the sailors are trained to apply the principles in the Naval Sea Systems Command Tag-Out Users Manual ("TUM"), and to follow applicable Navy procedures, including Navy Planned Maintenance System ("PMS") procedures, associated with the work being undertaken, to determine the isolations necessary and appropriate for the work to be completed. During maintenance availabilities, the work procedures that the Repair Activities utilize typically are not available to ships force. Only the limited specifics contained in the contract's Work Item Specifications are available, and more commonly than not, the references listed in the Work Item Specifications are not readily available to ships force. Ships force rely on the scope of work information provided in Block 7 of the Work Authorization Form ("WAF") by the Repair Activity in order to determine isolation boundaries or conditions that are required for tag-out. Ships force is trained to reference already established procedures, if available, in order to determine isolation requirements. If no established procedures exist, then ships force is trained to ask for additional information or a tag-out proposal in order to gain understanding of the isolation boundaries required for the scope of work being requested. In this case, the RA work to be completed was blow-in door ("BID") gasket replacement. (US000291).

The PMS procedure for gasket replacement, at the time the tag-out was requested and completed, directed isolation of the Gas Turbine Generator "GTG" engine but not of the BID, the BID control switch, or the BID heat trace. (US0001579-1581). This is reinforced by General Gas Turbine Bulletin (GGTB) NR. 28, Revision 2, issued April 30, 2018, which similarly does not direct isolation of the BID, BID control switch, or the BID heat trace, in conjunction with gasket replacement. (US0001537-1546).

In support of his observation that "[s]everal [d]ocuments require that all energy sources be isolated when tagging out a system such as a blow-in door," (Rudolph Report, [unnumbered] pp. 7-8 (pdf pp. 11-12)), Mr. Rudolph cites to a wide range of procedures that would not have applied to the tag-out of the BID at issue. As discussed further below, the procedure applicable to the tag-out of the blow-in panel specifically requested by the RA *did not* direct isolation of all

<sup>&</sup>lt;sup>1</sup> Repair Activity ("RA") refers to the professional ship repair contractors, and their subcontractors, retained by the Navy's Regional Maintenance Center ("RMC"), in this case the Mid Atlantic Regional Maintenance Center ("MARMC"), to perform all of the work specified in the contract for the McFAUL Maintenance Availability. TUM, p. B-3 (US000636); Contract No. N00024-16-D-4408 (US000001, US000011, US000090). In this case, General Dynamics NASSCO-Norfolk was the prime contractor responsible for the Maintenance Availability, (US000090), and its subcontractor, AIT, was assigned by NASSCO to perform the BID gasket replacement work (US0004913-4916, AIT 000024). "Ships force" refers to the activity duty military crew of the vessel undergoing the Maintenance Availability.

energy sources, but rather isolation of the GTG engine only.

2. In his report, Mr. Rudolph states "The BID opening has been used, as in this case, as a convenient access for welding and miscellaneous supply for work in the uptake passages." Rudolph Report, [unnumbered] p. 3 (pdf p. 7).

Use of the BID opening in this fashion constitutes a catastrophic failure on the part of the ship repair contractor responsible for directing and conducting work in the intake spaces.

The work specifications of the contract governing the Maintenance Availability direct that the gasket replacement was to be performed in accordance with the BID technical manual. (US0004913, US0004915, Buie Deposition Exhibit 1).

The BID technical manual (US0006212) specifically states "[u]nder no circumstances should the bypass opening of the blow-in moisture separators be used for access of personnel and/or equipment (cables, hoses, tools, etc.) to the downstream side of the panels." (US0006320). It is the responsibility of all personnel (ships force and RA) to understand and follow specific safety precautions of the work site they are working in and/or around. In the context of the Maintenance Availability, the work being conducted in the intake space where the BID in which Ms. Gary was injured was located was the responsibility of the ship repair contractors (US0004913-4916, Buie Deposition Exhibit 1).

When the ship is not undergoing maintenance, "[s]paces designated as intake or uptake spaces will be locked or physically secured from entry" in accordance with COM-NAVSURFLANTINST 3540.3B, the Engineering Department Organization and Regulations Manual ("EDORM"), article 4406 (US0013471). During the McFAUL Maintenance Availability, the intake space was unlocked and access turned over to the RA when the first Work Authorization Form ("WAF") for that space was authorized. During this repair availability the locks were removed to facilitate contractor work in the space, and the intake louvers were removed under Work Item 251-30-003 (US0004919), WAF # 0007 (CMS 0272). The access doors for the dirty side of the intake are part of the intake louver assemblies.

When the RA is performing work in a space, that space is considered a contractor workplace. The Navy is not responsible to enforce OSHA requirements in contractor workspaces, only to monitor to ensure safe working conditions for government employes in accordance with the Joint Fleet Forces Maintenance manual ("JFMM") Volume VII paragraph 10.3.4.b (US0011876). "When a contractor is performing work on board a Navy ship, the ship space involved is a contractor workplace in which the RMC [Regional Maintenance Center] and the ship's CO [Commanding Officer] have a NAVOSH responsibility for protection of government personnel and property. The RMC does not enforce Occupational Safety and Health Act requirements in contractor workplaces but does conduct monitoring to ensure safe working conditions for government employees. The RMC monitors the contractor's efforts, especially aboard Navy ships under construction, overhaul and repair, to ensure safe working conditions in areas where government personnel are present." Additionally, the requirements of NAVSEA Standard Item No. 009-74 (US0012454) require the RA "[e]stablish, document, implement, and

maintain a written Occupational Safety and Health Plan appropriate for the work to be accomplished."

The prime contractor is responsible for all contracted and sub-contracted safety management. As stated in Contract No. N00024-16-D-4408 Statement of Work paragraph 1.2, (US000018), "[T]he successful IDIQ-MAC [Indefinite Delivery Indefinite Quantity Multiple Award Contract] holder will be responsible for all work required under a DO [delivery order]; regardless of whether specific work items are performed with in-house resources or are subcontracted. The Prime Contractor(s) are responsible for all contracted and sub-contracted labor, management, supervision, coordination, quality control, quality assurance, quality management, safety management, environmental management, material, equipment, and transportation necessary to perform the requirements of each ship maintenance, modernization and repair DOs."

3. In his report, Mr. Rudolph observes that "[d]uring the availability the repair activity (RA) submits Work Authorization Forms (WAF) to the ship's force notifying them of the timing and nature of a specific job and recommends certain systems be tagged out to safely accomplish the work. The tagout is the responsibility of ship's force with review and approval of the repair activity." Rudolph Report, [unnumbered] p. 5.

Mr. Rudolph's observation is not entirely accurate. The tag-out is a joint responsibility of the ship's force and the RA.

The RA is responsible to ensure the accuracy and adequacy of tag-outs for RA work, as stated in the TUM paragraph 1.3.3.a.3 (US000611). The RA is responsible for "[e]nsuring the accuracy and adequacy of tag-outs before signing the Repair Activity Rep block of the line item. This review shall ensure that enough tags are used to completely isolate the system, piping, or circuit being worked on or to prevent operation of a system or component from all stations that could exercise control. Approved system diagrams or circuit schematics shall be used to determine the adequacy of all tag-out actions."

Thus the responsibility of the accuracy and adequacy of tag outs for RA work is shared between ships force and the RA. In general, the ships force does not have access to the specific work procedures the RA will be using and develops the tag-out based on the scope of work and/or required conditions that are listed on the WAF in block 7 (Work Description). The RA representative then acts as the authorizing officer for the RA, concurring that the isolation is adequate for the required work. (US000611, US0012130-131).

4. In his report, Mr. Rudolph states that Ms. Gary (the decedent) "had been stationed on the 'dirty side to carry out her watch.[']"

The specific location of required fire watches is the responsibility of the hot work supervisor and/or the hot work operator and must meet the requirements of NAVSEA Standard Item 009-07 paragraph 3.3. (US0011999). During the McFAUL Maintenance Availability, these were responsibilities of the ship repair contractors, as they were responsible for performing the

hot work. (US000491).

No. 2 GTG intake (dirty and clean side) compartment number is 01-260-1-Q. This space is not listed as the hot work location or the adjacent/affected space requiring a fire watch on the Hot Work Permit (US000491). Therefore, the space would not have been addressed by the ships force when reviewing the Hot Work Permit, nor would the space have been walked for potential fire hazards prior to the granting of approval to conduct hot work.

In summary, on March 15, 2021, the contractors controlled intake space 01-260-1-Q, and were responsible for the conduct and safety of the contractors and subcontractors working in that space. (US000491, US0004942-4947).

5. In his report, Mr. Rudolph relates that during the March 17, 2012 [sic – presumably he means March 17, 2021] BID operational test "the ship's force personnel claimed that the door could not be opened or closed manually even though GSCS Goff said that he could easily close the door if air pressure to the solenoid valve was secured."

These statements are not contradictory. During the operational test on March 17, 2021, energy and LP air were available to the BID. Accordingly, with the control switch in the open position, the pneumatic function of the LP air cylinder kept the door effectively locked in the open position, even in the face of all manual efforts to close it. GSCS Goff's observation during his deposition was that *if* energy or LP air were *secured*, (*i.e. discontinued*), *then* the door could be manually manipulated open and closed from the clean side of the intake. Goff Deposition p. 39, lines 12-16.

6. Mr. Rudolph notes in his report that the push-to-turn BID control switch detent feature was found to not be functioning properly after the accident, meaning that the switch turned without first being depressed.

No evidence indicates that the detent feature was not functioning properly *prior to* the accident. It could have been damaged as a result of whatever impact presumably caused it to turn at the time of the accident. Mr. Rudolph lists in his report, as a document he relied on, a "Review of Detente Action [sic] Rotary Switch on DDG-51 Class Blow-in Door Controller Panel D510-S0009-1 (NSN 5930-01-336-9963). This review document is dated February 13, 2024. It was issued on March 7, 2024, after the accident, and followed a Class Advisory ("CLAD") 0004-2021, also issued after the accident, requiring all DDGs to test and report discrepancies with this detent feature of the blow-in door controller switch. There is no evidence that, prior to the accident, either the sailors on the McFAUL or the Navy writ large, had any indication that the detent (push-to-turn) action could fail.

Additionally, the review document states in the Conclusion section, (US0008622), that "[t] he failure data reviewed does not indicate loss of operation due to the switches not being required to be pushed to turn...loss of this feature does not result in loss of switch and BID operability."

### 7. On [unnumbered] p. 6 (pdf p. 10) of his report, Mr. Rudolph observes that "[t]he repair activity witness block on the tag was blank."

In addition to requesting the tag-out configuration in the WAF, and in addition to concurring in the tag-out configuration proposed by ships force in response to the WAF, it is the RA responsibility, once each tag is issued and verified to be hanging on the correct component, and the component is in the correct position, to sign the tag and initial the Tags to be Hung "THS" or Line Item Record Sheet ("LIRS") that records the tag-out configuration. The initials on the THS or LIRS are what the ships force Authorizing Officer relies on to confirm that the RA has completed their review of posted tags and verified that the tags are in place and the components are in the tagged position. This is stated in the TUM for RA responsibilities (US000611).

In this case, the RA Representative responsible for the BID tag-out signed both box 14 on the LIRS, confirming his knowledge of and concurrence with the tag-out configuration proposed by ships force, and box 22, representing to the ships force that he had in fact witnessed, verified, and signed the posted tags associated with the BID tag-out.

Once the ship's Authorizing Officer receives the THS or LIRS with the RA initials in the RA witness block (box 22) complete, then the Authorizing Officer will sign block 13 and 14 on the WAF authorizing the start of work.

The RA representative, Mr Buie, testified in his disposition (page 33 line 2 though page 34 line 10) that he has had initial training and annual training on the tag-out process and requirements. These training requirements meet the RA qualification requirements of TUM paragraph 1.4.2(d), "RA personnel are qualified in this Tag-out User's Manual by successful completion of the activity's training program."

### 8. On [unnumbered] p. 6 (pdf p. 10) of his report, Mr. Rudolph states:

In Preetam Deposition exhibit 5, OSHA noted that based on the WAF (to perform hot work in the SSGTG #2 uptakes) Coastal Mechanical Systems was aware of the blow-in door work and hazards. It further stated that a No Tagout Required (NTR) was indicated on the WAF to Coastal Marine Systems because the door was already tagged out for AIT Marine (gasket replacement).

The ship repair contractor preparing the WAF would normally mark "yes" or "no" in block 13 of the WAF for "tagout required." This is because the preparer, the RA in this instance, has complete visibility and access to the specific work procedure for the scope of work. If the Authorizing Officer believed what was marked was incorrect, he or she would raise the concern to the WAF Coordinator ("WAFCOR"). The WAFCOR is NASSCO's representative responsible for coordinating the overall work authorization process. *See* NAVSEA Standard Item No. 009-24 (US0012129-12135). In the event of a concern or conflict, the WAFCOR is responsible to meet with designated representatives from each RA, the ship's CO's designated representative, and the RMC Supervisor to eliminate any tag-out conflicts in accordance with NAVSEA

Standard Item 009-106 paragraph 3.2 (US0012558).

### 9. Also, on [unnumbered] p. 6 (pdf p. 10) of his report, Mr. Rudolph states:

There was no record that there was any posting of warning or sign noting for anyone near the dirty side of the BID that there was a hazard associated with the BID opening or closing.

The responsibility of posting these warning signs resides with the RA that is conducting the work, as the requirement to post additional signs not permanently installed is part of the safety precautions listed in the BID technical manual in Section 2 Repair, under General Precautions (US0006320).

# 10. On [unnumbered] pp. 6-7 (pdf pp. 10-11) of Mr. Rudolph's report, He states "She [the Authorizing Officer] claimed that disconnecting the LP air from the system would have resulted in the door closing."

In her deposition, GSMC Preetam stated "...It would have *allowed* the door to close. And as per the WAF, it was supposed to be tagged out in the open position." (Preetam deposition page 45 lines 4-6). Additionally, she stated the same as listed in the OSHA report (US0002134).

Her statement is in fact correct. If LP air or electrical power were tagged out (i.e. isolated or discontinued) to the blow-in door, the door could have been closed by use of the manual release handle at the blow-in door, and by physical force or impact (i.e. lifting or pushing on the door). If the door is tagged in the open position and the door were then closed or otherwise moved from its open position, this would violate the purpose of the tag-out. The WAF (US000291) specifically stated to tag the BID in the open position. The only way to prevent operation of the door from all controlling locations would be to maintain the LP air supply and electrical power to the controller.

GSCS Goff shared this understanding, in his disposition on page 39 lines 14-16.

This was also functionally demonstrated in the video of the OSHA visit during the demonstration of the BID operation (US0008264) and the testing results Memorandum for the Record by LCDR Getty (US000185). With the BID switch in the Open position, LP air supply not secured (i.e. maintained), and electrical power applied, the BID is not able to be closed without turning the BID position switch to the closed position.

# 11. Mr. Rudolph goes on to conclude, in his section entitled "Analysis" that "[i]t wasn't necessary for the system to be energized to keep the BID *held* in the open position as specified by Mr. Preetam."

This conclusion is incorrect. Mr. Rudolph apparently misunderstands the way in which the BID functions.

Mr. Rudolph's report contains a self-drawn BID control system schematic (Figure 4). The drawing is technically inaccurate as the figure displays only one solenoid valve and does not depict the indicator/control open/close microswitches. The correct depiction of the electrical control system schematic is Figure 3-16 (US0006278) of the BID technical manual. Additionally, the interface, both mechanical and electrical, is depicted in Figure 8-5 (US0006442) of the BID technical manual.

The LP air is supplied from the ships system to two solenoid valves, one for the open function and one for the closed function. Each solenoid valve is then piped to the pneumatic cylinder, one to each side of the cylinder. When the Open solenoid is energized it allows LP air to flow to the open side of the pneumatic cylinder, this in turn unlatches the BID and forces the door to the open position. Once the door reaches the fully open position, it closes the open microswitch. Once the Open microswitch closes, the Open solenoid valve is then deenergized and vents the BID side to the atmosphere, depressurizing the pneumatic cylinder. This is described in further detail in the BID technical manual in Chapter 3 (US0006262, US0006270, and US0006274).

The electrical signal flow for Open position is in BID technical manual paragraph 3-4-3 (US0006281). With the LP air and electrical power supplied to the system, if the manual release handle was utilized in order to attempt to close the door, the door would not close, but would remain effectively locked in the open position. The electrical schematic of the system (Figure 3-16 of the BID technical manual (US0006278)) shows the electrical signal flow, as follows, if the door was attempted to be closed using the manual release lever. Upon releasing the manual lever and attempting to close the BID, the Open microswitches would then open the contacts, deenergizing the K2 relay. The K2 relay would then close the contacts between the T3 and P2 leads of the K2 relay, energizing the Open door solenoid, applying LP air to the Pneumatic cylinder. This would then force the door back to the fully open position, reclose the Open microswitches, and deenergize the Open solenoid. This would be an endless cycle as long as the control switch on the controller is in the open position. This was also functionally demonstrated in the video of the OSHA visit during the demonstration of the BID operation (US0008264).

The WAF (US000291) required the BID to be "tagged out in the open position." The special condition was to tag the BID so the door could not be closed. In order to tag the door so that it could not be closed, it was required to leave LP air and electrical power to the system. If LP air and/or electrical power was tagged out the door would be able to be closed from the manual release handle located on the BID panel in the clean side of the intake, and thus would not meet the special conditions of the WAF.

The TUM paragraph 1.5.2.c (US000614) states "[u]se danger tags to prohibit the operation or removal of equipment that could jeopardize safety of personnel or endanger equipment, systems, or components." This is what was done in this case. The BID system was tagged out in a manner that prevented the BID door from closing from all stations that could exercise control, including by use of danger tags. Additionally, TUM paragraph 1.6.a, (US000615), states "[u]se enough tags to completely isolate the system, piping, or circuit, being worked on and to prevent operation of a system or component from all stations that could

exercise control. As a minimum, system diagrams or circuit schematics shall be used, by preparers and reviewers, to determine the adequacy of all tag-out actions." The work described in Block 7 of WAF 271 (US000291) was to replace the BID gasket. The described work did not require opening of any fluid or air system or opening of any electrical components which would then require isolation boundaries to be established in order to conduct the work. Additionally, the WAF (US000291) did state for the BID to be tagged in the open position. The components that were tagged did effectively disable the GTG from the ability to start, and prevented the BID from being able to be closed from all stations that could exercise control. System diagrams were utilized in the preparation and review of the tag-out in order to ensure the correct valves were tagged to prevent the GTG from starting and isolate Anti-Icing air supply to the intake.

12. On [unnumbered] p. 7 (pdf p. 11) of his report, Mr. Rudolph states "The only person in either Ship's Force or the RA that seemed to know what would happen if air or electric power to the solenoid actuator was removed was GSCS Goff yet he stated he was not involved in the tagout process for any of the WAFs requiring the door to be tagged out in the open position."

GSMC Peetam testified in her deposition that LP air and electrical power had to remain supplied or the door would be able to be closed. (Preetam deposition, page 44 line 17 through page 45 line 6).

Elsewhere in her deposition, GSMC Preetam's testimony demonstrated her awareness that LP air and electrical power to the BID were routinely isolated, however this was done to facilitate different maintenance tasks (i.e. not BID gasket replacement) involving the BID, in accordance with the procedures specific to those tasks. (Preetam deposition, pages 67-68).

GSMC Preetam's testimony is substantiated by GSCS Goff's testimony in his disposition, (page 32 line 9 through page 36 line 9), in which he describes the full functional process of the system. Specifically, he states if LP air was secured the door would be able to be moved. (Goff deposition, page 36 lines 5-9).

GSMC Preetam and GSCS Goff testified consistently regarding the functioning of the system, and GSMC Preetam's deposition testimony (which is limited to answering the questions asked of her) demonstrates her familiarity with it.

GSM1 Austin Roberts also testified knowledgeably, and accurately, about the effects of isolating LP air and electric power to the BID. (Roberts deposition, pages 25-26). His testimony was consistent with that of GSMC Preetam and GSCS Goff.

13. On [unnumbered] pp. 8-9 (pdf pp. 11-12) of his report, Mr. Rudolph states "[s]everal [d]ocuments require that all energy sources be isolated when tagging out a system such as a blow-in door" Mr. Rudolph cites four documents in support of his assertion.

First, Mr. Rudolph cites the Navy Tag-Out Users Manual (the "TUM"). The TUM states, in five locations, that "[e]nough tags should be used to completely isolate the system, piping, or

circuit being worked on, and/or prevent operation of a system or component from all stations that could exercise control." Mr Rudolph's statement focuses only on the first part of the TUM provision, and relies on a selective and incomplete reading of the TUM. The isolation listed on the LIRS (US000194) for the tag-out of the BID at issue in this case met the TUM's criterion for preventing the operation of the BID.

Next, Mr. Rudolph cites the "Maintenance Requirement Cards ("MRCs") for the Combustion Air System generally. The MRCs provide the Planned Maintenance System or "PMS" procedures discussed in Section 1 above. The MRCs are specific to specific maintenance tasks. As GSMC Preetam testified, some MRCs for some maintenance procedures direct isolation of LP Air, or de-energization of the heat trace, or de-energization of the BID control switch, depending on the type of maintenance to which they apply. However, the MRC applicable to BID gasket replacement in effect at the time of the accident was not one of these. Contrary to Mr. Rudolph's assertion, the MRC specific to BID gasket replacement in effect at the time of the accident required neither isolation of LP Air, nor de-energization of either the heat trace or control switch. The MRC 2513/007 U-3 procedure B8 H9ZY entitled "Replace Blow-in Door Gasket," (US0001579-1581) (i.e. the procedure that provided ships force with the isolations required for the BID tag-out requested by the RA) directs, as Preliminary step a., (US0001580), to "[d] e-energize and/or isolate gas turbine and attach safety tag(s) in accordance with TUM and/or local instructions." The tags listed on the LIRS (US000194) met the requirements to isolate the GTG engine, including precluding its ability to start, and preventing Anti-Icing air from being introduced into the intake trunk.

This procedure in MRC 2513/007 U-3 for blow-in door gasket replacement is reinforced by the procedure set forth in General Gas Turbine Bulletin (GGTB) NR. 28, Revision 2, issued April 30, 2018, (US0001537-1546), which is the third item cited by Mr. Rudolph. The GGTB 28 Revision 2 Detailed Instructions Step 1, (US0001543), addresses BID gasket replacement.<sup>2</sup> The follow-on step 1.a through 1.g of GGTB 28, (US0001544 through US0001546), make no mention of additional isolation or tag-out requirements for testing or adjusting/correcting the BID gasket if/when replacement is required. By contrast, [s]tep 2 of GGTB 28 (US0001547) provides a procedure for replacement of the heat trace sealant (as required). Unlike the GGTB 28 procedure for BID gasket replacement, the GGTB 28 procedure for replacing heat trace sealant does have an additional warning specifically instructing to "isolate the L.P. air to BID solenoids, and attach safety tags IAW [in accordance with] shipboard instructions prior to working on heat trace." The work specified in WAF 0271 was blow-in door gasket replacement, and specifically requested tag-out of the BID "in the open position." The scope of the work to be completed did not include any work to be completed on the heat trace. In summary, the GGTB 28 procedure for BID gasket replacement does not, as Mr. Rudolph contends, "require that "all energy sources be isolated" to the BID.

<sup>&</sup>lt;sup>2</sup> GGTB 28 Revision 2 Detailed Instructions Step 1, (US0001543), states "[r]eplace BID gasket per reference (b)." The use of "reference (b)" in this sentence is an obvious typographical error and clearly is intended to be "reference (c)" instead. Reference "b" is the JFMM. (US0001540). The JFMM would not contain the procedure for BID gasket replacement. Reference (c) is the MRC 2513/007 No. H9ZY, U-3 (i.e. US0001579), which is the procedure for BID gasket replacement.

Lastly, Mr. Rudolph cites the "Review of Detente Action [sic] Rotary Switch on DDG-51 Class Blow-in Door Controller Panel D510-S0009-1 (NSN 5930-01-336-9963). This document, characterized as a "situational advisory," was issued on March 7, 2024, several years after Ms. Gary's accident. The document primarily summarizes data compiled from a fleet-wide review of the functionality of the detent action aspect of BID push-to-turn control switches on all active Navy Destroyer vessels. Paragraph 7.h of the document, (US0008623), states generally that "[w]hen personnel need to access the BIDs for maintenance, references (d) and (e) direct the ship's force to tag out the assemblies by securing electric power to the BID controller, and low pressure (LP) air to the BID solenoid valves and pneumatic actuators." Reference (d) of this report is the BID technical manual which itself does not provide tag-out or isolation requirements separate and apart from the PMS procedures or MRCs discussed above. Reference (e) of this report is MRC "8QXB, Test Blow-In Doors Automatic Operation, Inspect and Lubricate Moisture Separator/Blow-In Panels and Test Heat Trace." This particular MRC encompasses a series of specific blow-in door maintenance measures, some of which require isolation of the LP Air and de-energization of the heat trace, and others of which do not. This MRC, however, is not the MRC for blow-in door gasket replacement, which, again, was the work to which WAF 0271 related. Therefore, the Paragraph 7.h of the Review/situational advisory document cited by Mr. Rudolph does not somehow establish that the sailors on the McFAUL in 2021 ought to have isolated the LP Air supply to, and/or de-energized the BID heat trace or control switch, in connection with WAF 0271 for blow-in door gasket replacement. For one thing, the Review is dated in 2024, and presumably references the versions of procedures in effect at the time it issued. Moreover, it contains only a summary observation about MRCs and tag-out procedures generally, citing an MRC that does not apply to BID gasket replacement specifically.

### 14. In his section entitled "Conclusions," Mr. Rudolph notes (among other observations):

a. That GSCS Goff failed to "insert[] himself" in reviewing the tag-out - for which he was not the Engineering Duty Officer or Authorizing Officer.

Contrary to Mr. Rudolph's assertion, GSCS Goff was under no obligation to "insert himself" in this particular tag-out (one of hundreds performed throughout the months-long duration of the Maintenance Availability) at the time it was completed. There was no evidence that GSCS Goff was informed of a question or abnormal circumstance that would have required him to insert himself. Additionally, the COMNAVSURFLANTINST 3540.3B (EDORM) defines the responsibilities and duties of the Top Snipe in paragraph (i) of Article 2112 (US0013395). There is no mention of monitoring or reviewing tag-outs. The responsibility of the reviewing and authorizing tag-outs is the responsibility of the Engineering Duty Officer in paragraph (c.17) of Article 2604 (US0013423).

b. That Chief Engineer Getty ought to have "recognize[d] the circumvention of good engineering practices that took place with respect to control and tag-out of BIDs that would have allowed him to see red flags associated with tagouts of potentially hazardous systems."

I disagree that there was a "circumvention of good engineering practice." The Sailors involved with the tag-out process from start to finish did exactly as they have been trained to do. Tagging the BID in the open position was not a "normal" position for them in which to tag-out the BID. However, changing gaskets on the BID is also not a "normal" task to perform. This task is completed approximately every 3-5 years, typically during a major maintenance availability. Most sailors only experience one major maintenance availability during their tour onboard a ship.

The sailors adhered to the maintenance procedures for the repair task and followed the requirements contained in the maintenance procedure (MRC). The sailors understood the system functionality enough to tag the BID in the open position and prevent the further operation of the BID from all stations that could exercise control. Additionally, the scope of work did not require the breaking open of any pressurized system, or the opening of any electrical components, therefore did not require any additional isolation boundaries in order to safely conduct the work.

The fundamental purpose of the tag-out program is to prevent personnel from operating a component and break established work boundaries or operate equipment while work is ongoing. This does not remove the physical ability of the components' position to be changed. The Danger Tags that are placed on each component are a notification to other personnel that changing the position of the component could cause danger to personnel or equipment. The tag-out program is a preventive measure to reduce the risk associated with working on equipment/systems.

## c. That the RA failed to properly "warn[] the fire watch of the pinch hazards associated with open BID's [sic]."

I agree with Mr. Rudolph that the RA failed to employ measures to prevent Ms. Gary, and potentially others, from hazards created by working in the No. 2 SSGTG intake space while the blow-in door was, as requested, tagged out in the open position to facilitate gasket replacement, as required in NAVSEA Standard Item 009-74 paragraph 3.1.1, (US0012454), "[m]ethod(s) of communicating potential hazards, prior to the start of any task, to contractor's employees, subcontractor employees, and other potentially affected personnel."

The lack of the RA (ship repair contractors') coordination efforts of multiple jobs in and around the compartment I would consider a direct cause, and in fact the most direct cause, of the accident, as it resulted directly in Ms. Gary's fatal injury. The normal passage to the work was blocked by a tarp over the access as described in GSCS Goff's deposition (page 24 line 3). The RA coordination of multiple repair items in and around the same compartment is the RA responsibility, as stated in the JFMM Volume VII paragraph 10.3.4.b (US0011876). If the jobs were sequenced properly, then the other repairs in and adjacent to compartment 01-260-1-Q, other than the BID gasket replacement, would have been completed before the BID gasket

<sup>&</sup>lt;sup>3</sup> I do not agree with the common descriptor of "good engineering practice" as it typically is used when someone disagrees with something, or would do something a different way, but is not supported with a document or written requirement. It is most commonly used as a blanket "I would have done it differently" type of statement without an answer to the "why" question. And, it most commonly is a statement made retrospectively, after the outcome already is known.

replacement job was undertaken, or vice versa, to reduce the danger to personnel.

In my experience, the RA typically will attempt to open as many WAFs as the ship will allow in the beginning of the availability with no intention of working them at the time of opening the WAF. This appears to have been the case with the McFAUL Maintenance Availability. This practice is contrary to the intent of the WAF process, in my opinion. The purpose of the WAF process is "[t]o provide the procedures for authorization and control of shipboard work." (US0009714). See also NAVSEA Standard Item No. 009-24, FY-21 (US0012129 "[e]nsure all work on ship's systems and components is properly authorized and controlled in order to ensure rigorous personnel and ship safety standards are met."). The control of shipboard work cannot be effectively accomplished if the WAF process is not timely in nature. The WAF authorization should be completed in a reasonable timeframe prior to the work. Additionally, when the work is completed, the WAF should reflect the work has been completed in a reasonable time frame. See e.g. TUM, Section 1.8.1 "[r]emove danger tags . . . immediately when the operation/work line item(s) requiring the tag(s) has been corrected and clearing of tags has been authorized by the Authorizing Officer and RA Representative[]." (US000629). If the timeframe is not reasonable, then the control of work currently ongoing is not able to be maintained, and loss of situational awareness is the result. As discussed above, responsibility for sequencing all of the work provided for in Contract No. N00024-16-D-4408 for the McFAUL Maintenance Availability, as well as for directing and supervising all ship repair contractors (and subcontractors) was the responsibility of General Dynamics NASSCO-Norfolk, as the prime contractor responsible for the work.

Dated: January 6, 2025 Respectfully submitted,

UNITED STATES OF AMERICA

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I hereby certify that on January 6, 2025, a copy of the foregoing was served via electronic mail to the following counsel of record:

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GSCM (SW) Gregory M. Mann, U.S. Navy
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MOB-E Gas Turbine Warfare Area Lead

GSCS(SW) Mann, a native of Tallahassee, Florida who enlisted on February 23, 1997. He completed basic training at Recruit Training Command and Firemain ATD School at Navy Training Command in Great Lakes, IL.

He was assigned to USS JOHN RODGERS (DD 983) from June 1997 to September 1998 when the ship decommissioned. Transferred to USS THE SULLIVANS (DDG 68) from September 1998 to December 2001. He served as Work Center Supervisor and Leading Petty Officer in Main Engine Room One. He qualified Engineering Officer of the Watch and served as a member of the Engineering Training Team. His first shore duty was at SIMA Mayport / SERMC from January 2002 to January 2005. Serving in the Gas Turbine Repair shop. He earned his BIFMA Gas Turbine Repair NEC and qualified team leader in all repair procedures. In February 2005, he attended GSM "C" School at NTC Great Lakes in route to the USS DOLYE (FFG 39). He served onboard USS DOYLE (FFG 39) from June 2005



to January 2010. He served as Work Center Supervisor, Leading Petty Officer, MP Divisional LCPO and 3MC while onboard. From February 2010 to November 2012 he served at Afloat Training Group, Mayport as the MOB-E Mission Area Team Leader. He then was assigned to USS PHILIPPINE SEA (CG 58) from December 2012 to December 2016 as the Top Snipe. He then was stationed at Afloat Training Group, Norfolk from February 2017 to February 2020 as MOB-E Gas Turbine Trainer/EAA Assessor. Served as Top Snipe onboard USS VICKSBURG (CG 69) from March 2020 to December 2022 during Service Life Extension Program (SLEP) 5 year extended repair and modernization period. Followed by serving as the Top Snipe at COMDESRON 22 from December 2022 to April 2024 the ISIC of seven DDGs to include being assigned as the Top Snipe of USS MITSCHER from September 2023 to April 2024. He is currently serving as Afloat Training Group Norfolk / Engineering Assessments Atlantic MOB-E Gas Turbine Warfare Area Lead since May 2024.

His personal awards include: Navy and Marine Corps Commendation Medal (Seven awards), Navy and Marine Corps Achievement Medal (Eight awards), and various unit/campaign awards. He is a graduate of the Coastline Community College with an Associate's Degree in Management and a graduate of the Shipboard Engineering Plant Program Manager Course (Top Snipe).

Bates/ECF No.	Description
ECF No. 21	Amended Complaint
ECF No. 119	USA's Third-Party Complaint
AIT 000007-34	Original Purchase Order
AIT 000103	Photo of C. Gary/accident scene
7111 000100	Photographs: WAFs 0275, 0320, 0007, 2B Engine BID danger tagged (open position); SSGTG
	No. 2 BID Control Switch danger tagged (closed position); 2A Engine BID danger tagged (open
CMS0270-276	position); close up No. 2SSGTG Danger Tag 2020-009908 (unsigned by RA).
US000001-89	Solicitation, Offer and Award (Base Contract) No. N00024-16-D-4408
US0000892	BID Tech Manual NOV 1993
US000090-164	Delivery Order, Contract No. N00024-164408
US0001529	GGTB Nr. 28 APR 2016
US0001537	GGTB Nr. 28 Rev. 2 APR 2018
US0001554	PMS.ListEffectivePages.EMO2
US0001555	MIP 2513
US0001557	MIP 2513 MRCs
US0001579-581	BID MRC B8 H9ZY U
030001373 301	S9234-GA-GTP-020 Volume 2 FEB 1991 CHANGE A 1 NOV 1996 Technical Manual Electrical
US0001611-1892	System Propulsion Plant System for DDG-51 Class Ships
US0001911-1892	Partially-redacted Near-Miss Incident Report, 17 SEP 2018
US000194-195	Line Item Record Sheet
US000194 199	Class Advisories
US0001993-2010	Portion of USS McFAUL Training PPT
US000291-293	AIT BID WAF
US0002947-48	OSHA photos placards by intake space
030002947-48	Delivery Order; Contract/Purchase Order Agreement No. N00024-16-D-4408; Delivery
US0004673-4747	Order/Call No. N5005420F0057P00011
US0004748-5249	Work Specifications TPPC-DDG74-MARMCN20-CN01
US0004748-3243	Hot Work Permit 210316
US000592-697	TUM Rev. 08 280CT2020
US0005970-971	LP Air system diagram/schematic
US0006212	BID Tech Manual JUN 2018
US0006459-6467	Pictures time-stamped 3/15/21 at 07:19-07:21
US0008597	9360-425-022-GGTB 28 REV 3
US0008597-8612	General Gas Turbine Bulletin No. 28 Rev. 3 8/24/21
US0008613-8631	Letter report on DDG51 class advisory re: BID rotary switches 3/7/24
US0008632-11921	JFMM 10/16/2019
US0011922-12672	NAVSEA Standard Items FY 2021
US0012673-12707	MIP 2513 MRCs
US0012730	MIP 3431 SSGTG Spprt
US0012730-732	MIP 3431/002-0 SSGTG Support Systems 3431
US0012738-739	PMS Service Request to update MRC Syscom 8QXB
US0012740-741	PMS Service Request to update MRC Syscom 8QXB
000012740 741	4/6/21 NAVSEA Final: On-Duty 15 MAR 2021 Ground, Industrial and Occupational, Ship
US0012742-45	Component/Distribution Systems, Electrical Power, Event Report #143195
US0013332-13337	DSSA0455 - EOSS - SS Air
US0013370-13371	60hz diagram
US0013370 13571	EDORM
N/A	Deposition Transcript & Exhibits - Robbie Goff
N/A	Deposition Transcript & Exhibits - Anita Preetam
N/A	Deposition Transcript & Exhibits - Austin Roberts
N/A	Deposition Transcript & Exhibits - Kelvin Buie
N/A	Deposition Transcript & Exhibits - Aaron Getty
N/A	Deposition Transcript & Exhibits - Douglas Helms
11/11	1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-